

CLAIMS:

1. A vacuum pump comprising:
 - a housing;
 - 5 a pump mechanism accommodated in the housing;
 - an exhaust-passage forming portion located outside of the housing, wherein the exhaust-passage forming portion forms an exhaust passage, which exhaust passage guides gas discharged from the pump mechanism toward the outside of the
 - 10 vacuum pump; and
 - a thermal conductor connected to an outer surface of the exhaust-passage forming portion, wherein the thermal conductor is made of a material having a thermal conductance that is greater than that of the material for the exhaust-
 - 15 passage forming portion.
2. The pump according to claim 1, wherein the thermal conductor is shaped as a flat plate.
- 20 3. The pump according to claim 1, wherein the thermal conductor is formed by bending a flat plate.
4. The pump according to claim 1, wherein a thermal-conductance improver is located between the thermal
- 25 conductor and the exhaust-passage forming portion.
5. The pump according to claim 4, wherein the thermal-conductance improver is located between the thermal conductor and the exhaust-passage forming portion such that
- 30 a gap does not exist between the thermal conductor and the exhaust-passage forming portion.
6. The pump according to claim 1, wherein the thermal conductor extends parallel to the direction in which the
- 35 exhaust passage extends, and holds the exhaust-passage

forming portion.

7. The pump according to claim 1, wherein the gas is a
gaseous reaction product generated in a semiconductor
5 fabrication process.

8. The pump according to claim 1, wherein the thermal
conductor is fixed to the exhaust-passage forming portion
with a metal bolt.

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9. The pump according to claim 1, wherein the thermal
conductor abuts on an outer surface of the housing.

10. A vacuum pump comprising:

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a housing;

a pump mechanism accommodated in the housing;

an exhaust-passage forming portion located on an outer
surface of the housing, wherein the exhaust-passage forming
portion forms an exhaust passage, which exhaust passage
20 guides gas discharged from the pump mechanism toward the
outside of the vacuum pump, wherein the exhaust-passage
forming portion includes:

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a flange, which is located in an upstream section
of the exhaust passage and which receives the gas
discharged from the pump mechanism;

a muffler connected to the flange, wherein the gas
flows from the flange to the muffler; and

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a thermal conductor connected to an outer surface of
the flange and the muffler, wherein the thermal conductor is
made of a material having a thermal conductance that is
greater than that of the material for the exhaust-passage
forming portion.

11. The pump according to claim 10, wherein the thermal
35 conductor is shaped as a flat plate.

12. The pump according to claim 10, wherein the thermal conductor is formed by bending a flat plate.

5 13. The pump according to claim 10, wherein a thermal-conductance improver is located between the thermal conductor and the exhaust-passage forming portion.

10 14. The pump according to claim 10, wherein the thermal-conductance improver is located between the thermal conductor and the exhaust-passage forming portion such that a gap does not exist between the thermal conductor and the exhaust-passage forming portion.

15 15. The pump according to claim 14, wherein the thermal conductor extends parallel to the direction in which the exhaust passage extends, and holds the exhaust-passage forming portion.

20 16. The pump according to claim 10, wherein the gas is a gaseous reaction product generated in a semiconductor fabrication process.

25 17. The pump according to claim 10, wherein the thermal conductor is fixed to the exhaust-passage forming portion with a metal bolt.

18. The pump according to claim 10, wherein the thermal conductor abuts on an outer surface of the housing.

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